


LIGHT EMITTING DIODE AND DISPLAY DEVICE USING THE SAME

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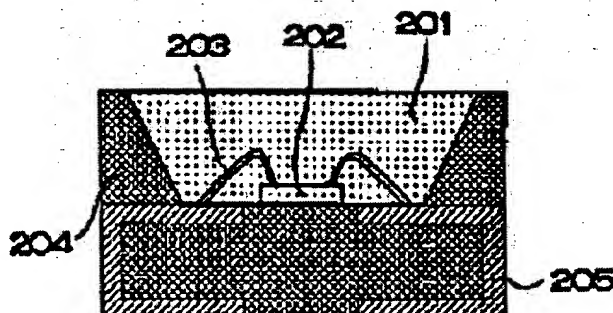
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Abstract of JP10242513

PROBLEM TO BE SOLVED: To reduce the luminous efficiency deterioration and color slurring of a light emitting diode even when the diode is used for a long time under a high-luminance condition, by respectively constituting the LED chip and photoluminescent phosphor of the diode of a nitride compound semiconductor and cerium-reactivated yttrium aluminum garnet phosphor.

SOLUTION: An LED chip 202 using a gallium nitride semiconductor is fixed in an enclosure 204 of a chip type LED with an epoxy resin, etc. An epoxy resin in which a $(RE_{1-x}Sm_x)_3(AlyGa_{1-y})_5O_{12}:Ce$ phosphor is scattered is uniformly cured as a molded member 201 which protects the LED chip 202, conductive wires, etc., from the external stresses. The cerium-reactivated yttrium aluminum garnet phosphor is scattered in the epoxy resin as a photoluminescent phosphor.



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